

REMARKS

Claims 22-41 and 43-53 have been canceled. Claim 42 has been amended to incorporate Claim 53. The Examiner had indicated in the Office Action of June 6, 2003 that Claim 53 was allowable (page 6 of the 06/06/03 Office Action).

New Claims 54-65 are presented.

New Claim 54 is drawn to a method of analyzing the sequence of a polynucleotide of interest for the presence or absence of an altered region. The method comprises annealing a single sample of the polynucleotide of interest to a plurality of primers, wherein the primers comprise an array of consecutive, single-stranded oligonucleotides having known sequences of N nucleotides in length, wherein each primer differs from the previous primer in the array by one base at the 3' end, such that the primers are capable of hybridizing successively along the polynucleotide of interest, generating a plurality of annealed primers. The plurality of annealed primers is subjected to a single base extension reaction to extend each annealed primer by addition of a terminating nucleotide to form a plurality of extended primers. The identity of each terminating nucleotide that has been added to each extended primer is observed, thereby analyzing the polynucleotide of interest for the presence or absence of an altered region. Claims 56-65 are drawn to further embodiments of Claim 55. Support for these claims is found in the specification on page 3, line 30, through page 4, line 13; page 4, lines 29-33; FIG. 1; page 5, lines 8-9; FIG. 5; and page 7, line 26 through page 10, line 24.

No new matter has been added.

Rejection of Claims Under 35 U.S.C. § 102(b) and (e)

Claims 42-51 are rejected under 35 U.S.C. § 102(b) and (e) as being anticipated by Soderlund (U.S. Patent 6,013,431) and Soderlund (WO 91/13075).

Claim 42 has been amended to incorporate Claim 53 and Claims 43-51 have been canceled, obviating the rejection.

New Claim 54 is drawn to a method of analyzing the sequence of a polynucleotide of interest for the presence or absence of an altered region. The method comprises annealing a single sample of the polynucleotide of interest to a plurality of primers, wherein the primers

comprise an array of consecutive, single-stranded oligonucleotides having known sequences, wherein each primer differs from the previous primer in the array by one base at the 3' end, such that the primers are capable of hybridizing successively along the polynucleotide of interest, generating a plurality of annealed primers.

Soderlund teaches a method wherein tests involving primers as shown in Fig. 3 of Soderlund are "performed by dividing the sample in two" or by "performing the (. . .) detection steps sequentially and including an elution step after the detection step of the first variable nucleotide to remove primer 1" (Col. 9, lines 21-33).

There is no disclosure or suggestion in Soderlund of a method for analyzing a polynucleotide of interest for the presence or absence of an altered region wherein a single sample of the polynucleotide of interest is annealed to a plurality of primers, wherein the primers comprise an array of consecutive, single-stranded oligonucleotides having known sequences, wherein each primer differs from the previous primer in the array by one base at the 3' end, such that the primers are capable of hybridizing successively along the polynucleotide of interest, generating a plurality of annealed primers. Claims 55-65 are dependent upon Claim 54 and include all of the limitations of Claim 54. Therefore, New Claims 54-65 are novel over Soderlund. Withdrawal and reconsideration of the rejection are respectfully requested.

Rejection of Claims under 35 U.S.C. §103(a)

Claims 22-52 are rejected under 35 U.S.C. §103(a) as being unpatentable over Goelet, *et al.* (U.S. Patent 6,004,744) in view of Rust, *et al.* (U.S. Patent 5,605,794).

Claims 22-41 and 43-52 have been canceled, and Claim 42 has been amended to incorporate Claim 53, obviating the rejection.

New Claim 54 is described above.

There is no disclosure or suggestion in Goelet, *et al.* in view of Rust, *et al.* of a method for analyzing a polynucleotide of interest for the presence or absence of an altered region wherein a single sample of the polynucleotide of interest is annealed to a plurality of primers, wherein the primers comprise an array of consecutive, single-stranded oligonucleotides having known sequences, wherein each primer differs from the previous primer in the array by one base at the 3' end, such that the primers are capable of hybridizing successively along the polynucleotide of

interest, generating a plurality of annealed primers. Claims 55-65 are dependent upon Claim 54 and include all of the limitations of Claim 54. Therefore, New Claims 54-65 are not rendered obvious by Goelet, *et al.* in view of Rust, *et al.* Withdrawal and reconsideration of the rejection are respectfully requested.

Information Disclosure Statement

An IDS was filed in U.S. Serial no. 09/711,476 which was received by the U.S. Patent and Trademark Office on April 2, 2001. The Examiner returned a copy of the 1449 form with the Office Action dated 06/06/2003. However the 1449 form returned by the Examiner had not been signed by the Examiner. The Examiner is respectfully requested to return a signed copy of the 1449 form of April 2, 2001, indicating that the cited references were considered by the Examiner.

In addition, a Supplemental Information Disclosure Statement (SIDS) is being filed concurrently herewith. Entry of the SIDS is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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